HEATED STAINLESS STEEL EMISSIONS CANISTER

ABSTRACT OF THE DISCLOSURE

An exhaust gas measurement system is provided that includes a probe to find a sample exhaust gas passageway for collecting exhaust gas. A stainless steel canister is fluidly connected to the probe for storing the exhaust gas. A pump fluidly interconnects the probe and the canister for transferring the exhaust gas from the probe to the canister. A pressure mass flow controller fluidly interconnects the probe and the canister and produces an exhaust gas flow measurement corresponding to the flow of the exhaust gas from the probe to the canister. A temperature sensor senses a temperature of the exhaust gas proximate to the pressure mass flow controller. The temperature sensor corrects the exhaust gas flow measurement based upon the temperature sensed. A pressure sensor senses a pressure of the exhaust gas proximate to the pressure mass flow controller. The temperature sensor corrects the exhaust gas flow measurement based upon the pressure sensed. The mass flow controller can be controlled by an external source to account for flow changes in the CVS system. A heating device heats the stainless steel canister and other components of the exhaust gas measurement system such as the pressure mass flow controller to a temperature of preferably approximately 191°C. Another heated pressure mass flow controller may also be used to determine the amount of exhaust gas that is transferred from the canister to an analyzer for the actual determination of the hydrocarbons.